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TECH CENTER 1600/2900

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<120> USE OF RECOMBINANT LIVE-ATTENUATED PARAINFLUENZA VIRUS  
(PIV) AS A VECTOR TO PROTECT AGAINST DISEASE CAUSED BY  
PIV AND RESPIRATORY SYNCYTIAL VIRUS (RSV)

<130> 17634-000330

<140> 09/458,813

<141> 1999-12-10

<150> 09/083,793

<151> 1998-05-22

<150> 60/047,575

<151> 1997-05-23

<150> 60/059,385

<151> 1997-09-19

<160> 30

<170> PatentIn Ver. 2.1

<210> 1

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 1

cttaagaata tacaaataag aaaaacttag gattaaagag cg

42

<210> 2

<211> 36

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 2

gatccaacaa agaaacgaca ccgaacaaac cttaag

36

<210> 3

<211> 101

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 3

aggcctaaaa gggaaatata aaaaacttag gagtaaagtt acgcaatcca actctactca 60  
tataattgag gaaggaccca atagacaaat ccaaattcga g 101

<210> 4

<211> 79

<212> DNA

<213> Artificial Sequence

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six.

<400> 4

tcataattaa ccataatatg catcaatcta tctataatac aagtatatga taagtaatca 60  
gcaatcagac aataggcct 79

<210> 5

<211> 63

<212> DNA

<213> Artificial Sequence

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six.

<400> 5

aggaaaaggg aaatataaaa acttaggagt aaagttacgc gtgttaactt cgaagagctc 60  
cct 63

<210> 6

<211> 38

<212> DNA

<213> Artificial Sequence

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<400> 6

aggaaaaggg aacgcgtggt aacttcgaag agctccct 38

CI <210> 7

<211> 6

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Nucleotide  
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<400> 7

ctaaat 6

<210> 8

<211> 6

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 8

cttaag 6

<210> 9  
<211> 6  
<212> DNA  
<213> Artificial Sequence

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<400> 9  
tcaatc

6

<210> 10  
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<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 10  
acaacgagac cggataaatg ccttctac

28

<210> 11  
<211> 67  
<212> DNA  
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 11  
attattgctt aagggttggc cgggtgcggt tctttgttgg atcctatctg cgattgggtc 60  
catcttc 67

<210> 12  
<211> 6  
<212> DNA  
<213> Artificial Sequence

<220>

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six.

<400> 12

agacaa

6

<210> 13

<211> 6

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 13

aggcct

6

<210> 14

<211> 55

<212> DNA

<213> Artificial Sequence

<220>

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six.

<400> 14

gacaataggc ctaaaaggga aatataaaaa acttaggagt aaagttacgc aatcc

55

<210> 15

<211> 68

<212> DNA

<213> Artificial Sequence

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six.

<400> 15  
gtagaacgcg tttatccggt ctcggttggtg tgacatctcg aatttggatt tgtctattgg 60  
gtccttcc 68

<210> 16  
<211> 68  
<212> DNA  
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six.

<400> 16  
gtagaacgcg tttatccggt ctcggttggtg tgacatctcg aatttggatt tgtctattgg 60  
gtccttcc 68

<210> 17  
<211> 28  
<212> DNA  
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<220>  
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six.

<400> 17  
ccatgtaatt gaatccccca acactagc 28

<210> 18  
<211> 28  
<212> DNA  
<213> Artificial Sequence

<220>  
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six.

<400> 18  
cggataaacg cggttctacaa agataacc 28

<210> 19  
<211> 28  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 19  
cggataaacg cggtctacaa agataacc

28

<210> 20  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 20  
gggccatgga agattacagc aat

23

<210> 21  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 21  
caataagctt aaagcattag ttccc

25

<210> 22  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 22

gcgatggggcc cgaggaagga cccaatagac a

31

<210> 23

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 23

cccggtcct gatttccga gcacgctttg

30

<210> 24

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 24

agtggctaatt tgcattgcat ccacat

26

<210> 25

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 25

gccgtctgca tggatgaatag caat

24



<210> 26  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Nucleotide  
insert to conform inserted sequence to rule of  
six.

<400> 26  
cgcggcaggc ctg

13

<210> 27  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Nucleotide  
insert to conform inserted sequence to rule of  
six.

<400> 27  
cgcggcgagg cctg

14

<210> 28  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Nucleotide  
insert to conform inserted sequence to rule of  
six.

<400> 28  
cgcgaggcct ccgcg

15

<210> 29  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 29

cgcgccgcgg aggcct

16

<210> 30

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nucleotide  
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six.

<400> 30

cgcgcccgcg gaggcct

17

al  
concl'd.